

APPENDIX C:
MATL NOXIOUS WEED CONTROL PLAN

**THIS DOCUMENT IS INCLUDED AS APPENDIX N TO THE MATL MFSA
APPLICATION**

**Montana Alberta Tie Ltd.
230-kV Transmission Line Project from
Lethbridge, Alberta to Great Falls, Montana**

APPENDIX N

**Noxious Weed and
Invasive Plant Control Plan**

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1.0 Introduction

This plan was developed to identify noxious weed and invasive plant control practices that would be implemented for the US portion of the Montana Alberta Tie Ltd (MATL) 230-kV transmission line project from the Canadian border to Great Falls, Montana. A noxious weed is a weed arbitrarily defined by law as being especially undesirable, troublesome, or difficult to control. Invasive plants are alien species whose introduction does or is likely to cause economic or environmental harm or harm to human health (USFR 1999). Equipment and supplies necessary for construction and future operation and maintenance (O&M) activities, and the activities themselves, are possible agents for the spread of noxious and invasive plants (Sheley and others, 1999). Construction and maintenance vehicles can potentially carry seeds into the project area, and from one part of the area to another. The risk of establishing a weed and invasive plant community increases with ground disturbing maintenance activities (Sheley and others, 1999).

Executive Order 13112 requires that each federal agency 1) prevent the introduction and spread of invasive species, 2) detect and respond rapidly to control such species, 3) monitor invasive species populations, and 4) provide for restoration of native species and habitat conditions in ecosystems that have been invaded (USFR 1999). The Montana County Weed Control Act (Title 7, Chapter 22 Part 21) provides for weed management at the county level. The law requires counties to develop a long-term management plan for the control of noxious weeds in their county.

Table 1-1 below provides a summary of the categories of noxious weeds identified in the state of Montana's Weed Management Plan along with each weed's reported distribution within the six project area counties; Glacier, Toole, Pondera, Teton, Cascade and Chouteau Counties.

Table 1-1 Designated Noxious Weeds of Montana

Category 1 - Widespread Noxious Weeds*	
Canada Thistle (<i>Cirsium arvense</i>)	Reported in All Project Area Counties
Field Bindweed (<i>Convolvulus arvensis</i>)	Reported in All Project Area Counties
Leafy Spurge (<i>Euphorbia esula</i>)	Reported in All Project Area Counties
Russian Knapweed (<i>Centaurea repens</i>)	Reported in All Project Area Counties
Spotted Knapweed (<i>Centaurea maculosa</i>)	Reported in All Project Area Counties
Whitetop or Hoary Cress (<i>Cardaria draba</i>)	Reported in All Project Area Counties except Glacier County (historically present)
Diffuse Knapweed (<i>Centaurea diffusa</i>)	Reported in Teton, Cascade and Chouteau Counties

Dalmatian Toadflax (<i>Linaria dalmatica</i>)	Reported in All Project Area Counties
St. Johnswort (<i>Hypericum perforatum</i>)	Reported in Glacier, Cascade and Chouteau Counties. Historically present in Teton County.
Sulfur (Erect) Cinquefoil (<i>Potentilla recta</i>)	Reported in Glacier, Pondera, Cascade and Chouteau Counties. Historically present in Toole County.
Common tansy (<i>Tanacetum vulgare</i>)	Reported in Glacier, Cascade and Chouteau Counties. Historically present in Toole and Pondera Counties.
Ox-eye Daisy (<i>Chrysanthemum leucanthemum</i> L.)	Reported in Glacier, Cascade and Chouteau Counties. Historically present in Pondera and Teton Counties.
Houndstongue (<i>Cynoglossum officinale</i> L.)	Reported in All Project Area Counties
Yellow toadflax (<i>Linaria vulgaris</i>)	Reported in All Project Area Counties
Diffuse Knapweed (<i>Centaurea diffusa</i>)	Reported in All Project Area Counties
Category 2 – Established New Invaders*	
Dyers Woad (<i>Isatis tinctoria</i>)	Historically present in Pondera and Chouteau Counties, but not currently reported.
Purple Loosestrife or Lythrum (<i>Lythrum salicaria</i> , <i>L. virgatum</i> , and any hybrid crosses thereof).	Reported in Pondera and Cascade Counties. Historically present in Toole County.
Tansy Ragwort (<i>Senecio jacobea</i> L.)	Not reported in any Project Area County.
Meadow Hawkweed Complex (<i>Hieracium pratense</i> , <i>H. floribundum</i> , <i>H. piloselloides</i>)	Historically present in Pondera and Chouteau Counties.
Orange Hawkweed (<i>Hieracium aurantiacum</i> L.)	Not reported in any Project Area County.
Tall Buttercup (<i>Ranunculus acris</i> L.)	Reported in Glacier County. Historically present in Teton County.
Tamarisk [Saltcedar] (<i>Tamarix</i> spp.)	Reported in Cascade and Chouteau Counties. Historically present in Teton County.
Perennial pepperweed (<i>Lepidium latifolium</i>)	Reported in Toole, Pondera, Teton, Cascade and Chouteau Counties.
Category 3 – Non-Established New Invaders*	
Yellow Starthistle (<i>Centaurea solstitialis</i>)	Not reported in any Project Area

	County.
Common Crupina (<i>Crupina vulgaris</i>)	Not reported in any Project Area County.
Rush Skeletonweed (<i>Chondrilla juncea</i>)	Not reported in any Project Area County.
Eurasian watermilfoil (<i>Myriophyllum spicatum</i>)	Not reported in any Project Area County.
Yellow flag iris (<i>Iris pseudacoru</i>)	Reported in Cascade County.

*As reported in the 2005 update of the Montana Weed Management Plan

2.0 Plan Purpose

The weed control plan is part of the overall restoration program. The overall goal of the restoration program is to preserve the native plant species, community, and functioning ecosystem within the Project Study Area. The purpose of this weed control plan is to prevent and control the spread of noxious weeds and invasive plants during and following construction of the proposed project. MATL and its contractors will be responsible for carrying out the methods described in this plan. Reasonable alternatives may be substituted or methods employed to the extent agreed upon jointly by MATL and the State Inspector (or DEQ personnel).

The Noxious Weed and Invasive Plant Control Plan will implement preventative measures to keep construction sites within the Project Study Area free of species that are not yet established there but which are known to be pests elsewhere in the region. The Plan will set priorities for the control or elimination of weeds that have already established on the site, according to their actual and potential impacts on native species and communities, particularly on our conservation targets. MATL and its contractors will take action only when careful consideration indicates leaving the weed unchecked will result in more damage than controlling it with available methods. This strategy will be developed in coordination with the BLM, State of Montana and the impacted County Weed Districts (Glacier, Pondera, Teton, Chouteau, and Cascade Counties). The focus of MATL's noxious weed and invasive plant control efforts will be to prevent the spread of new populations resulting from project activities, and to assist landowners in their weed control responsibilities by reducing or eliminating existing infestations in the project area. Without concurrent control of weed infestations by landowners on surrounding lands, weed control efforts in the project area by MATL will likely be unsuccessful.

3.0 Objectives

For the project area, the objectives of noxious weed and invasive plant control are: 1) to acquire information on the occurrence, distribution and abundance of noxious weeds and invasive plants in the project area prior to construction, 2) to reduce or eliminate existing infestations and prevent the spread of new and existing populations of noxious weeds and invasive plants within the project area to the extent feasible for the life of the project following each construction phase, 3) to ensure any populations of rare plants within the project area are not negatively impacted by control activities, and 4) to coordinate and consult with designated BLM, State of Montana and County weed personnel regarding all noxious weed control activities conducted by MATL to ensure compatibility with existing weed control protocol.

4.0 Weed Control Area

The area for noxious weed and invasive plant control (hereafter referred to as the 'weed control area') includes all lands disturbed by construction activities plus a 30-foot buffer area around disturbances. Newly constructed roadways, where needed, are expected to be about 14 feet wide with varying widths of cut and fill slopes. To buffer all disturbed areas it is estimated that the 'weed control area' will consist of an approximately 100-foot corridor along all roadways and tensioning sites that are used for construction, and all lands within 50 feet of each new transmission line structure. MATL will assume responsibility to control noxious and invasive plants in the weed control area.

5.0 Pre-Construction Surveys

Noxious weed and invasive plant inventories in the project area will be conducted by MATL-designated botanists who are familiar with the taxonomic characteristics and typical habitat preferences of noxious weeds and invasive plants. Prior to construction, surveys will be conducted along existing and proposed new roads to be used for the project, structure locations, pulling and tensioning sites, staging and laydown areas, excavated sites, and other construction sites along the ROW. The Project area will be divided into small survey units (e.g., one or more segments between transmission line structures, including transmission line structure locations) and botanists will record all noxious weed and invasive species present within the survey unit.

Relative abundance of each noxious weed and invasive plant will be recorded for the following three zones (including travelways in and out of the three zones):

- Zone 1: Immediately on the existing or proposed disturbed sites (e.g., roadbeds, structure locations, cut/fill slopes);
- Zone 2: within 30 feet of disturbances, and

- Zone 3: in the general area greater than 30 feet from disturbances.

Ground surveys will be conducted in Zones 1 and 2; Zone 3 will receive a reconnaissance-level survey based on what is visible adjacent to the 30 ft buffer. Relative abundance of noxious and invasive plant species found in surveyed areas will be recorded. The project botanist will identify locations of any rare plant species that could potentially be affected by control activities and identify conditions necessary to avoid adverse impacts to these locations.

Maps illustrating noxious weed and invasive species abundances in survey units will be produced at an appropriate scale to assist with monitoring and control activities. Other ancillary thematic layers will also be plotted on the maps to assist with navigation and planning.

The dates of all pre-construction surveys will be coordinated with designated BLM, State of Montana, and weed boards/coordinators in Glacier, Pondera, Teton, Chouteau, and Cascade Counties. It is MATL's intent to conduct the survey at an appropriate time in the growing season to positively identify targeted noxious weeds and invasive species and to establish baseline conditions for future control activities. It is anticipated that the pre-construction survey will occur in late summer 2006.

6.0 Noxious Weed Management

Weeds and invasive species are spread by a variety of means including humans (e.g., workers, hikers and recreationalists, etc.), vehicles, construction equipment, construction and reclamation materials, livestock, and wildlife. Implementation of preventive measures to control the spread of noxious weeds and invasive plants is the most cost-effective management approach.

7.0 Preventive Measures

The following preventive measures would be implemented to prevent the spread of noxious/invasive plants during construction and future O&M activities:

1. Prior to construction, the construction contractor will be trained on methods for cleaning equipment, identification of problem plant species in the project area, and procedures to follow when an invasive or noxious weed is located. To assist in identification, the contractor will be supplied with a list and pictures of noxious and invasive species that may exist within the project area.
2. Prior to any construction disturbance, all known weed populations will be flagged so that they may be avoided.
3. Prior to entering the project area, vehicles and construction equipment will be cleaned (pressure wash or forced air) of all mud, dirt, and plant parts where there is a potential to import weeds. This will be done to

remove weed seed that may be attached to this equipment. Washing will occur at designated sites (i.e., construction yards), that include appropriate containment systems.

4. Equipment, materials, and vehicles will be stored at specified work areas or construction yards. All personal vehicles, sanitary facilities, and staging areas will be confined to a limited number of specified weed-free locations to decrease chances of incidental disturbance and spread of noxious weeds and invasive plants.
5. Disturbed areas will be promptly seeded following completion of construction activities to reduce the potential for the spread and establishment of noxious weeds and invasive plants. Seeding should occur as soon as possible following construction and during the optimal time period. Landowners will be contacted and asked to, if possible, refrain from grazing or moving cattle through populations of noxious weeds and newly planted areas. Only county/state-approved mixtures of certified "weed-free" seed will be used. All other introduced construction materials used for the Proposed Project, such as straw and fill, shall also be weed-free.
6. To limit new or improved accessibility into the area by OHVs and other motorized vehicles, all new access roads undesired or not required for maintenance would be controlled in accordance with management directives of BLM, State of Montana, and private landowners.

8.0 Control Measures

If pesticides are used in the project area, an integrated pest management plan would be developed to ensure that applications will be conducted consistent with BLM and Department of Interior (DOI) policies.

Assuming the project will begin construction in late 2006 or early 2007, MATL will flag all known noxious/invasive plants (for avoidance) prior to the time of construction (e.g., September 2006) to prevent the spread of existing populations found in the designated weed control area. Following construction, annual spraying will begin, likely during the months of May and June; however the potential for fall treatment does exist for some species. Annual spraying will continue as necessary to control noxious/invasive plants in the weed control area for the life of the Proposed Project.

Using the prior years' survey information, annual spraying will be planned by MATL and coordinated with BLM, the State of Montana, and County weed coordinators/boards to ensure spraying will be conducted at the proper growing period, during favorable environmental conditions, and will use the appropriate chemicals to control targeted species. The chemicals used must be approved for use.

Only EPA-registered pesticides will be used. Pesticide use shall be limited to nonpersistent, immobile pesticides and will be applied in accordance with label and application permit directions. Spraying will be conducted using a qualified contractor as deemed appropriate by MATL and in consultation with designated BLM personnel, State of Montana personnel, and County weed coordinators/boards. The applicator used must possess a Montana State Pesticide Applicators License. Rather than broad application, the intent of applying herbicide will be to treat only designated areas.

It is anticipated that most spraying will be conducted using ATV-mounted spray equipment, supported by one or more four-wheel drive pickups equipped with water tanks. Pickups will carry necessary chemicals, fluid pumps, tools, and water to provide a base station for refilling of ATV spray tanks. Spraying infestations within the weed control area will be conducted by ATV, using hand-held spray guns with 25 to 50 foot hoses attached to spray tanks or by using 8 to 12 foot spray booms. The spray booms will be utilized for treating larger areas on roadbeds and on gentle to moderately steep terrain. All spraying equipment shall be calibrated to ensure the proper rate of herbicide is applied.

Following annual spraying, a monitoring survey will be conducted to verify locations of noxious weeds and invasive plants in the project vicinity. These monitoring surveys are expected to occur in the late summer/early fall (August-September) and will be conducted using MATL's-designated botanist personnel in the same manner described for the pre-construction surveys.

9.0 Reporting

Beginning with the fall/winter of 2007 (November 2007 to February 2008), MATL will prepare and submit a status report to designated federal, state and county personnel regarding the previous years' weed control activities. The winter 2007 report will detail baseline conditions regarding the occurrence, distribution, and abundance of listed species located in the project area, weed control activities accomplished to date, and expected activities for the following year. Each subsequent years' report will 1) detail the current status of noxious weed and invasive plant occurrence, distribution and abundance, 2) summarize activities conducted in the project area during previous years, and 3) outline projected activities for the following year. This will include timing of surveys, herbicide treatments, amount and types of chemicals applied, and a list of participants and their activities. These reports will continue annually from winter 2007 for the life of the project, or as required by designated federal, state and county personnel to ensure long-term noxious/invasive plan control measures are met in the weed control area.

10.0 References

- Montana Department of Agriculture. 2005. Montana Noxious Weed List. Montana Dept. of Agriculture, Helena, Montana. Available at <http://agr.state.mt.us/weedpest/noxiousweedslist2.asp>.
- Sheley, R.L., Manoukian, M., and G. Marks. 1999. "Preventing Noxious Weed Invasion," pages 69-72 in, R.L. Sheley and J.K. Petroff, editors. *Biology and Management of Noxious Rangeland Weeds*. Oregon State University Press, Corvallis, OR.
- USFR (U.S. Federal Register). 1999. "Presidential Document, Executive Order 13112. Invasive Species," Federal Register 64:6183-6186.